

**Original citation:**

Healey, Mark P., Hodgkinson, Gerard P., 1961-, Whittington, Richard and Johnson, Gerry. (2013) Off to plan or out to lunch? relationships between design characteristics and outcomes of strategy workshops. British Journal of Management . ISSN 1045-3172

**Permanent WRAP url:**

<http://wrap.warwick.ac.uk/60176>

**Copyright and reuse:**

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

**Publisher's statement:**

This is the accepted version of the following article: Healey, Mark P., Hodgkinson, Gerard P., 1961-, Whittington, Richard and Johnson, Gerry. (2013) Off to plan or out to lunch? relationships between design characteristics and outcomes of strategy workshops. British Journal of Management . ISSN 1045-3172, which has been published in final form at <http://dx.doi.org/10.1111/1467-8551.12038> .

**A note on versions:**

The version presented here may differ from the published version or, version of record, if you wish to cite this item you are advised to consult the publisher's version. Please see the 'permanent WRAP url' above for details on accessing the published version and note that access may require a subscription.

For more information, please contact the WRAP Team at: [publications@warwick.ac.uk](mailto:publications@warwick.ac.uk)



<http://wrap.warwick.ac.uk>

**OFF TO PLAN OR OUT TO LUNCH? RELATIONSHIPS BETWEEN DESIGN  
CHARACTERISTICS AND OUTCOMES OF STRATEGY WORKSHOPS**

**Mark P. Healey**

(Corresponding author)

Manchester Business School

University of Manchester, Manchester M13 9QH, UK

Tel: +44 (0)161 275 6572, Fax: +44 (0)161 275 7143

Email: [mark.healey@mbs.ac.uk](mailto:mark.healey@mbs.ac.uk)

**Gerard P. Hodgkinson**

Warwick Business School

University of Warwick, Coventry CV4 7AL, UK

Tel: +44 (0)24 7652 4306

E-mail: [gerard.hodgkinson@wbs.ac.uk](mailto:gerard.hodgkinson@wbs.ac.uk)

**Richard Whittington**

Saïd Business School

Park End Street, Oxford OX1 1HP, UK

Tel: +44 1865 288931 (SBS), Fax: +44 1865 288805

Email: [Richard.Whittington@sbs.ox.ac.uk](mailto:Richard.Whittington@sbs.ox.ac.uk)

**Gerry Johnson**

Lancaster University Management School

Lancaster University, Lancaster LA1 4YX, UK

Tel: +44 (0) 1524 592374

Email: [gerry.johnson@lancaster.ac.uk](mailto:gerry.johnson@lancaster.ac.uk)

### *Acknowledgements*

Earlier versions of this paper were presented at the 2010 Annual Meeting of the Academy of Management (Montreal, Canada) and the 2008 Strategy, Practices and Organizations (SPO) Strategy-as-Practice Symposium (Aston Business School, Aston, UK). We gratefully acknowledge the financial support of the UK ESRC/EPSRC Advanced Institute of Management Research (AIM), under grant numbers RES-331-25-0028 (Hodgkinson) and RES-331-25-0015 (Johnson), and the Millman Research Fund (Whittington). Finally, we are also grateful for the Chartered Management Institute's (CMI) assistance with the data collection.

### *Author biographies*

Mark P. Healey is Lecturer in Strategic Management at Manchester Business School, University of Manchester, UK. He received his Ph.D. in Management Sciences from UMIST. His research focuses on cognition in organizations, particularly applied to strategic decision making and the wider strategic management process. His research has appeared in leading scholarly journals including *Annual Review of Psychology*, *Organization Studies*, and *Strategic Management Journal*.

Gerard P. Hodgkinson is Professor of Strategic Management & Behavioural Science and Associate Dean (Strategy) at Warwick Business School, University of Warwick, UK. His research interests centre on the psychological foundations of strategic management, applied psychological measurement, and the nature and significance of management and organizational research for academia and wider publics. From 1999-2006 he was the Editor-in-Chief of the *British Journal of Management*.

Richard Whittington is Professor of Strategic Management at the Said Business School and Millman Fellow at New College, University of Oxford. His main current research interest is developing a more macro perspective on Strategy-as-Practice. He is author or co-author of nine books, including Europe's best-selling strategy textbook, *Exploring Strategy* (9th edition, 2011). He currently serves on the board of the Strategic Management Society.

Gerry Johnson is Emeritus Professor of Strategic Management at Lancaster University Management School and a Senior Fellow of the UK Advanced Institute of Management Research (AIM). His primary research interest is strategic management practice, in particular with regard to strategy development and change in organizations. His research has been published in leading international journals such as the *Academy of Management Review*, *Academy of Management Journal*, *Strategic Management Journal* and *Journal of Management Studies*.

# **Off to Plan or Out to Lunch? Relationships between the Design Characteristics and Outcomes of Strategy Workshops**

## **ABSTRACT**

Strategy workshops, also known as away days, strategy retreats, and strategic ‘off-sites’, have become widespread in organizations. However, there is a shortage of theory and evidence concerning the outcomes of these events and the factors that contribute to their effectiveness. Adopting a design science approach, in this article we propose and test a multidimensional model that differentiates the effects of strategy workshops in terms of organizational, interpersonal and cognitive outcomes. Analysing survey data on over 650 workshops, we demonstrate that varying combinations of four basic design characteristics – goal clarity, routinization, stakeholder involvement, and cognitive effort – predict differentially these three distinct types of outcomes. Calling into question conventional wisdom on the design of workshops, we discuss the implications of our findings for integrating further the strategy process, strategy-as-practice, and strategic cognition literatures, to enrich understanding of the factors that shape the nature and influence of contemporary strategic planning activities more generally.

**Keywords:** design science, scenario planning, strategic decision making, strategic planning, strategy formulation, strategy implementation, top management teams.

## Introduction

Strategy workshops – also known as strategy away-days, strategy retreats and strategic ‘off-sites’ – are a common practice in organizations. In the UK, nearly four out of five organizations use workshops for strategizing (Hodgkinson *et al.*, 2006) and they are part of the executive calendar in both the US (Frisch and Chandler, 2006) and mainland Europe (Mezias, Grinyer and Guth, 2001). Carrying high expectations for influencing strategy formulation and implementation, they represent significant resource investments.

In response to calls to reinvigorate research into the activities and practices of contemporary strategy making of all forms (Jarzabkowski, 2003; Jarzabkowski and Balogun, 2009; Johnson, Melin and Whittington, 2003, Johnson *et al.*, 2007; Whittington, 1996), workshops are receiving increased attention from management scholars (Jarratt and Stiles, 2010; Jarzabkowski, Balogun and Seidl, 2007; Jarzabkowski and Spee, 2009; Johnson *et al.*, 2010; MacIntosh, MacLean and Seidl, 2010; Whittington *et al.*, 2006). Descriptive data show that workshops are seen as integral to the strategic planning process, are largely the preserve of top-level managers, and are undertaken for various purposes, from creating space to reflect on current strategies to stimulating debates about the future and tackling organizational development needs (Hodgkinson *et al.*, 2006).

From a theoretical standpoint, workshops are of particular interest because they represent an important type of ‘strategic episode’ (Hendry and Seidl, 2006). That is, these events provide a rare opportunity to suspend normal structures to reflect on current policies and engage in new strategic conversations. Currently, however, there is little systematic theory or evidence linking the structure and conduct of workshops to their effectiveness. Accordingly, in this article we examine the critical success factors associated with workshops, introducing a design-based theory of strategy workshop effectiveness to understand better

how these events impact upon organizations. In so doing, we address three issues in the growing literature on workshops as a key type of strategic episode.

First, the few empirical studies of workshops published to date have tended to use small-scale, case-based methods (Bowman, 1995; MacIntosh, MacLean and Seidl, 2010; Mezias *et al.*, 2001; Whittington *et al.*, 2006). For instance, Hodgkinson and Wright's (2002) case-analysis of scenario planning practices centred on a single workshop-based intervention. Similarly, Johnson *et al.*'s (2010) study of workshops as ritual was based on cases in just four organizations. As Huff, Neyer, and Moslein (2010) have observed of research on strategy practices in general, a heavy reliance on small-scale, ethnographic methods has produced a somewhat narrow evidence base. These authors suggested analyzing larger datasets to widen the breadth of information on strategy practices and increase the generalizability of findings. Heeding this advice, we report results from a large-scale field survey of over 650 workshops conducted across a range of settings.

Second, studies to date construe workshop effectiveness in largely undifferentiated terms, equating it with the contribution to strategic continuity or strategic change (Jarzabkowski, 2003; Whittington *et al.*, 2006). Although such organizational-level outcomes are an important part of the effects of workshops, they do not tell the whole story. In this article, we extend strategy process research (Grant, 2003; Ketokivi and Castaner, 2004; Mintzberg, 1994) to suggest that the benefits of workshops also lie in people-related or interpersonal outcomes. Additionally, we posit that there is an important cognitive dimension to workshop outcomes, given the role of intervention techniques in enhancing strategic thinking (Bowman, 1995; Grinyer, 2000; Hodgkinson and Healey, 2008). Hence, we offer a more nuanced view of the impact of workshops by distinguishing theoretically and empirically between three distinct types of outcome — organizational, interpersonal and cognitive.

Third, the extant literature considers only a narrow range of factors that influence workshop effectiveness, often restricted to the behaviours of facilitators or influential individuals (Hodgkinson and Wright, 2002; Whittington *et al.*, 2006). Hitherto, no study has examined comprehensively how basic design features relate to workshop outcomes, although there have been calls for such work (Hendry and Seidl, 2006; Jarzabkowski and Spee, 2009). Studies that have looked explicitly at design issues have focused on a limited set of features (Johnson *et al.*, 2010; MacIntosh, MacLean and Seidl, 2010). Extending this line of inquiry, we adopt a design science approach to develop and test a series of hypotheses that link systematically a range of workshop design characteristics – from the extent of preparation and the variety of stakeholders involved to the analytical tools adopted – to the various outcomes alluded to above.

Although design characteristics influence the effectiveness of all workgroup practices, including those in the upper echelons of organizations (Cohen and Bailey, 1997), the embryonic literature on workshops (and indeed strategic episodes more generally) provides little detailed guidance on which design features are important or how they are important. Accordingly, we turn to various additional literatures to posit multiple generative mechanisms that contribute to workshop (in)effectiveness.

In design science research, it is appropriate and desirable to draw on a range of theories to generate and test hypotheses that substantiate design principles (van Aken, 2004, 2005; Hodgkinson and Healey, 2008; Hodgkinson and Starkey, 2011, 2012; Pandza and Thorpe, 2010). Grounding design propositions in generative mechanisms underpinned by robust social science theory increases their efficacy (Dunbar and Starbuck, 2006; Romme and Endenburg, 2006; Simon, 1969). Based on this logic, we ground our hypotheses in various bodies of theory, from work motivation and ritual theory to managerial and organizational cognition.

Adopting a design approach enables us to speak directly to outstanding questions posed by Hendry and Seidl's (2003, p. 194) social systems theory concerning the effectiveness of a given strategic episodes, such as, "who should participate ... whether or by whom it should be facilitated, or what provision should be made in advance for addressing its outcomes". Given the limited current evidence base, identifying the design characteristics that yield positive outcomes (e.g. changes to the business plan, enhanced interpersonal relations, improved strategic understanding) and mitigate negative ones (e.g. interpersonal conflict, strategic inertia), should provide firmer foundations for future design activity (cf. Christensen, 1997; Frisch and Chandler, 2006). Figure 1 provides a visual representation of our hypotheses linking various design characteristics to workshop outcomes; next, we explain our conceptualization of outcomes before presenting the arguments underpinning the hypotheses.

-----  
Insert Figure 1 here  
-----

### **Conceptualizing the outcomes of strategy workshops**

Workshops are often criticized because of a basic confusion about what these events are trying to achieve (Johnson et al., 2010; MacIntosh, MacLean and Seidl, 2010). In this section, we posit that workshop outcomes fall into the three types enumerated above. We derive this three-fold classification from a conceptual analysis of the literature on workshops and related strategic episodes, supplementing this where necessary with insights from strategy process and strategic cognition research.

#### *Organizational outcomes*

We define organizational outcomes as the impact of workshops on the organization's strategic direction, including its vision, values, espoused strategy, business plan and attendant business processes. Hence, in this context organizational outcomes concern actual changes to the organization and its direction that are distinct from financial performance outcomes. This



definition fits with evidence that workshops and related practices can either bolster strategic continuity or, alternatively, stimulate strategic change (Jarzabkowski, 2003; Whittington *et al.*, 2006). Indeed, attaining such ends is the espoused purpose of many workshops (Johnson *et al.*, 2010). For example, Lorsch and Clark (2008) observed how board retreats at Philips Electronics helped directors decide to forgo their dwindling position in the semiconductor market and concentrate on the growing health technology market. Other accounts suggest that outcomes of this magnitude are exceptional; many off-sites leave little lasting impression on the organization (Bourque and Johnson, 2008; Frisch and Chandler, 2006; Mintzberg, 1994).

Anecdotal evidence suggests that where workshops do influence firms' strategic direction this is because the formal event provides a rare forum for examining and changing strategy content – e.g. refining the organization's goals or mission, adjusting its strategic plan, or communicating a new vision (Campbell *et al.*, 2003; Fahey and Christensen 1986; Ready and Conger, 2008). Returning to the Philips example, it was “open and frank discussions” concerning the “long-term logic” of the business that stimulated the decision to switch strategic focus (Lorsch and Clark, 2008, p. 110). At other times, the aim is to bolster commitment to the status quo or maintain an existing imperative. For example, Whittington and colleagues (2006) observed how the chief executive of a large charity used workshops to bolster support for her plan to centralize control. Although workshops may fail to influence wider organizational strategizing, the extent to which they *do* exert such influence, as reflected in noticeable impact on strategy content, is thus a key indicator of effectiveness.

#### *Interpersonal outcomes*

Strategy workshops are often instigated with people-related outcomes in mind, such as team-building and organizational development (Campbell *et al.* 2003; Frisch and Chandler 2006; Hodgkinson *et al.*, 2006). Hence, our second indicator of workshop effectiveness concerns the interpersonal outcomes obtained, which we define as potential impact on relations among key

actors. We maintain that workshops can exert a direct impact on relations among those executives, managers, and employees involved in the formal proceedings.

First, bringing together individuals to collaborate on common issues facilitates interpersonal contact, building a shared sense of purpose and identity that fosters cohesion (Anson, Bostrom, and Wynne, 1995; Hodgkinson and Healey, 2008; Hogg and Terry, 2000); conversely, managers may suffer disengagement if a workshop brings to light irreconcilable differences within the executive team (Hodgkinson and Wright, 2002). Second, involvement in planning can instil a shared feeling of organizational appreciation (Ketokivi and Castener, 2004), which fosters behavioural integration (see also Kim and Mauborgne, 1993; Wooldridge *et al.*, 2008). From both a processual (Hutzschenreuter and Kleindienst, 2008) and strategy-as-practice (Johnson *et al.* 2010) perspective, the benefits of planning reside as much in such ‘soft’ outcomes as in performance-focused outcomes. Highly ritualized workshops, in particular, promote ‘communitas’ or group bonding, at least within the workshop event (Johnson *et al.* 2010).

#### *Cognitive outcomes*

The third type of workshop outcome we identify concerns the potential impact on participants’ understanding of strategic issues, which we term cognitive outcomes. This includes understanding of the organization’s strategic position and direction, the strategic issues it faces, and the wider business environment.

Workshops are commonly viewed as a way of taking decision makers beyond their day-to-day concerns to participate in higher-level debates, the goal being to stimulate creativity and enhance ‘blue skies’ thinking (Hodgkinson and Healey, 2008; Hodgkinson *et al.*, 2006). According to Bowman (1995, p. 6), the goal of many workshops is to “surface the intuitive core of beliefs which is framing and constraining strategic debate”. Similarly, Grinyer (2000) outlines how firms use workshops to reveal and challenge top managers’

implicit assumptions – embedded in schemas, dominant logics and other knowledge structures – thereby overcoming cognitive inertia, the over-reliance on outmoded mental models of the firms' strategic situation (Barr, Stimpert and Huff 1992; Hodgkinson and Wright 2002). Through formal analysis, externalization, and information exchange workshops can help refine participants' understanding of key strategic issues such as who the organization's competitors are, how products and services are contributing to competitiveness, and the robustness of future plans to industry prospects (Frisch and Chandler, 2006; van der Heijden, 1996).

Although it is plausible that cognitive and organizational outcomes are related, we assume here that they constitute distinct effects. For instance, a workshop might influence how managers think about their strategy (a cognitive outcome) but not produce direct changes to the strategic plan or business activities (organizational outcomes). Moreover, organizational outcomes concern effects on realized strategy that may only be noticeable sometime after the formal event. In contrast, both cognitive and interpersonal outcomes constitute more immediate effects, i.e. those experienced within or soon after the event. Having delineated the different types of outcomes, the next section provides the theoretical rationale for the hypothesized links with the design characteristics shown in Figure 1.

### **Hypothesized design characteristics as predictors of workshop outcomes**

#### *Goal clarity*

Anecdotal evidence suggests that off-sites frequently fail because designers do not understand the required outcomes; they thus neglect to restrict the scope of discussions, which leaves participants unclear about what to focus upon or how to progress (Frisch and Chandler, 2006; Hendry and Seidl, 2008; Johnson *et al.*, 2010). Goal setting theory (Locke and Latham, 1990), one of the most extensively validated theories of work motivation, emphasizes that having clear goals at the outset of any group task is vital for focusing effort on desired outcomes,

energizing participants and maintaining persistence (for a review, see Latham and Pinder, 2005). At the group level, setting clear goals improves performance by developing collective identity, building cohesion, and facilitating constructive debate and consensus (Kerr and Tindale 2004; O'Leary-Kelly *et al.* 1994). Clear goals are likely to be particularly critical in strategy workshops, where the presence of individuals with diverse backgrounds and interests can militate against focus. Grinyer (2000), for instance, highlights the importance of 'setting the frame' – communicating the goals, rules and boundary conditions – for attaining cognitive outcomes from strategic interventions. Although the motivational effects of goal clarity are well-understood in the wider literature, validating their specific influence on workshop outcomes is important for establishing robust design propositions in the context of strategizing. Given the powerful evidence-base concerning goal clarity, we predict:

*H1:* The clearer the workshop objectives, the more positive the perceived organizational outcomes, interpersonal outcomes, and cognitive outcomes.

#### *Purpose and type of workshops*

As noted above, organizations undertake workshops for a variety of espoused purposes, but mainly to facilitate strategy formulation or implementation (Hodgkinson *et al.*, 2006).

Although workshops may also serve implicit purposes such as legitimation (Langley, 1989), it is reasonable to expect that events convened to formulate strategy will entail different approaches to, and yield different outcomes from, those convened for purposes of implementation.

Consider first workshops designed for formulation. These events often entail the use of thought-provoking exercises and analytical tools – analysing industry trends, brainstorming problems, stimulating 'blue skies' thinking (Johnson *et al.*, 2010) – designed to help attendees make sense of particular strategic issues or generate new ideas (i.e. cognitive outcomes).

When seeking to stimulate such open debate, designers typically involve attendees from

varied backgrounds, with diverse perspectives, the ultimate goal being to enrich their mental models (Grinyer, 2000; van der Heijden *et al.*, 2002). In contrast, the purpose of workshops designed for implementation purposes is often to close down debate and keep participants grounded (Johnson *et al.*, 2010), focussing activities on delivering actual changes toward a particular strategic direction (i.e. organizational outcomes). Such events are designed to build strategic consensus and commitment to specific courses of action (Whittington *et al.*, 2006). In this sense, broadened thinking is the antithesis of implementation workshops. Related evidence shows that interventions designed for consensus-building yield inferior decision outcomes relative to those designed to stimulate debate (Schweiger, Sandberg and Ragan, 1986; Schweiger, Sandberg and Rechner, 1989). Hence:

*H2a: Workshops undertaken for the purposes of strategy formulation will be associated with cognitive outcomes that are perceived more positively relative to workshops undertaken for implementation purposes.*

A potential difficulty of formulation-focused workshops is that participants may see them as having failed to deliver tangible benefits (Hodgkinson *et al.*, 2006; Johnson *et al.*, 2010). Specifically, because such events focus on abstract cognitive outcomes such as broadening participants' assumptions, they may fall short of directly influencing the organization's formal strategy or actual strategic routines. Workshops designed specifically for implementation, however, may stand a greater chance of attaining tangible outcomes. To the extent such workshops are more action-orientated, they are more likely to yield substantive organizational effects than events arranged simply to generate ideas. Convening groups specifically for implementation provides members with a compelling mission, which sustains energy toward concrete goals (Higgins *et al.*, 2012). Consistent with this logic, Whittington *et al.* (2006) observed that in workshops designed to achieve buy-in, facilitators controlled debate and built consensus around particular courses of action, thereby encouraging participants to accept and respond to specific strategic imperatives. If

participants in implementation-orientated workshops internalize and act upon the imperatives at hand, such events are more likely to influence wider strategizing. Therefore, we predict:

*H2b:* Workshops undertaken for the purposes of strategy implementation will be associated with organizational outcomes that are perceived more positively relative to those undertaken for formulation purposes.

*Routinization: removal and serialization*

Commentators often emphasize the importance of workshop design features that foster innovation by breaking away from the confines of everyday organizational routines (e.g. Eden and Ackermann, 1998; van der Heijden *et al.*, 2002). Such devices include using external facilitators, staging events away from the regular workplace, disengaging from standard operating procedures, and using novel analytical techniques. These hallmarks of the strategy workshop make sense in the light of Doz and Prahalad's (1987, p. 75) view that strategic change requires, "a stepping out of the existing management process – since these processes are set to sustain the 'old' cognitive perspective." Creativity research similarly suggests that being away from routine work to engage in new experiences in an environment removed from prevailing pressures can restore cognitive capacity (Elsbach and Hargadon, 2006; Kaplan and Kaplan, 1983).

Johnson and colleagues (Bourque and Johnson, 2008; Johnson *et al.*, 2010), however, provide a different view of removal. Adopting an anthropological perspective, they maintain that the above design features engender a form of 'privileged removal' characteristic of social rituals more generally, a key element of which is the separation of the event from everyday practices. From this perspective, removal features enhance the uniqueness of workshops, imbuing them with ritualistic meaning in their own right. Hence, although removal devices might help to open up strategic thinking they might also create difficulties when seeking to reconnect with the practical realities confronting the organization at the end of the formal proceedings (see also Hendry and Seidl, 2003), thus reducing the likelihood of attaining

substantive organizational outcomes (e.g. changes to the enduring strategic plan). We thus propose:

*H3a:* The greater the degree of workshop removal, the more positive the perceived cognitive outcomes.

*H3b:* The greater the degree of workshop removal, the less positive the perceived organizational outcomes.

If removal fosters disconnection, then integrating workshops with regular strategy processes should help realize tangible outcomes. Removal is likely to be particularly high for stand-alone events, which may appear as mere novelties. For instance, the ‘annual strategy retreat’ is typically a highly ritualized event that exhibits mass displacement from the social structures underpinning routine strategizing (Bourque and Johnson, 2008; Johnson *et al.*, 2010). For such one-off events, ideas and agreements formed within the confines of the workshop often fail to translate into subsequent action. In contrast, we argue that serialization – returning to ideas and commitments over a series of episodes – is likely to embed understanding more deeply in managers’ collective consciousness. Evidence shows that repeating analytical activities and revisiting debates enhances the amount of time and energy focused on strategic issues, which increases the likelihood of learning and builds momentum towards chosen courses of action (Fiol, 1994, Lant and Hewlin, 2002). Furthermore, social systems theory suggests that strategic episodes that are more frequent acquire their own structures and legitimacy, thus becoming recognized means of ‘getting strategy work done’ (Hendry and Seidl, 2003; MacIntosh, MacLean and Seidl, 2010). We thus predict:

*H3c:* Workshops organized as part of a series of events will be associated with cognitive outcomes that are perceived more positively relative to workshops held as one-off events.

*H3d:* Workshops organized as part of a series of events will be associated with organizational outcomes that are perceived more positively relative to workshops held as one-off events.

### *Stakeholder involvement and participation*

The opportunity for diverse stakeholders to collectively address strategic issues – as often observed in workshops – may be rare in organizational life (Lorsch and Clark, 2008; Johnson *et al.*, 2010). Building on evidence regarding the benefits of inclusiveness in strategy processes (Floyd and Lane, 2000; Westley, 1990; Wooldridge and Floyd, 1990), we theorize that workshops designed for wider participation will yield positive interpersonal outcomes, for three reasons. First, research shows that involving stakeholders other than top management (e.g. middle managers) in strategizing creates a collective sense of ownership, fairness, and commitment (Kim and Mauborgne, 1993; Korsgaard *et al.*, 2002), whereas their omission can cause alienation and conflict (Wooldridge *et al.*, 2008). Second, bringing together disparate stakeholders in a forum designed to develop collective solutions results in shared identities, in turn fostering social cohesion (Gaertner *et al.*, 1990; Hodgkinson and Healey, 2008; van Knippenberg *et al.* 2004). Third, events that enable diverse participants to understand and empathize with each other's views, a process known as perspective taking, strengthens social bonds (Galinsky *et al.*, 2005). Hence:

*H4a:* The greater the range of stakeholder groups involved in workshops, the more positive the perceived interpersonal outcomes.

Notwithstanding the above arguments, it is likely that as the overall number of individual workshop participants exceeds an optimum point, the quality of debate and information exchange will deteriorate. With increased numbers of participants seeking to contribute to group activities, the diversity of perspectives and agendas aired becomes unmanageable, heightening task and interpersonal conflict (Amason, 1996; Amason and Sapienza, 1997; De Dreu and Weingart, 2003). We thus predict:

*H4b:* There is a curvilinear relationship between the size of the workshop group and perceived interpersonal outcomes, such that interpersonal outcomes will be more positive for groups of intermediate size relative to small and large groups.



### *Cognitive effort*

A common goal in workshops directed toward stimulating change is to challenge and/or enrich decision makers' understanding of strategic issues (Eden and Ackerman, 1998; Grinyer, 2000; van der Heijden *et al.*, 2002; Mezias *et al.*, 2001). From a cognitive standpoint, workshops seek to move participants out of routine modes of thinking and into more effortful deliberations, thereby challenging prevailing mental models (Hodgkinson and Clarke, 2007; Reger and Palmer, 1996). In particular, engaging more fully with focal strategic issues prior to the workshop should enable deeper and broader information processing during the event. In addition, workshops of greater duration, allowing for a greater range of activities, more detailed discussion, and greater information sharing are likely to foster richer debate, which in turn should yield greater understanding (van Knippenberg *et al.*, 2004; Schweiger *et al.*, 1986). Although workshops of extreme duration might lead to fatigue, thereby undermining positive outcomes, events of such length are rare (Hodgkinson *et al.*, 2006). Hence:

*H5a:* The greater the degree of preparation for workshops, the more positive the perceived cognitive outcomes.

*H5b:* The greater the duration of workshops, the more positive the perceived cognitive outcomes.

Several writers suggest that the analytical tools employed in workshops can help to update managers' mental models of the strategic situation (Eden and Ackerman, 1998; Hodgkinson and Healey, 2008; Jarratt and Stiles, 2010; Mezias *et al.*, 2001). Such tools provide a means of organizing complex information concerning the organization (e.g. core competencies analysis) and its external environment (e.g. five forces analysis). We theorize that employing a range of analytical tools should improve cognitive outcomes through two mechanisms. First, using a diversity of tools can help participants to synthesize information from multiple perspectives, thereby enhancing the quality of deliberation (Schweiger *et al.*, 1986, 1989; Wright, Paroutis and Blettner, 2013). Second, expanding the range of tools

should augment the degree of cognitive effort expended, enabling participants to elaborate their understanding of strategic issues. Hence:

*H5c:* The greater the range of analytical tools deployed in workshops, the more positive the perceived cognitive outcomes.

In seeking to enhance cognitive outcomes, the nature of the tools used is a further consideration. In line with dual-process models of cognition (e.g. Louis and Sutton, 1991), certain strategy tools can exert pronounced cognitive effects by shifting users out of automatic thinking and into more effortful forms of information processing (Hodgkinson et al., 1999, 2002; Hodgkinson and Maule, 2002; Maule, Hodgkinson and Bown, 2003). Based on this logic, tools deployed to challenge managers' assumptions about their organization and its environment might be particularly valuable (Eden and Ackermann, 1998; Mezias *et al.*, 2001; van der Heijden *et al.*, 2002). For instance, research suggests that scenario planning can, if designed appropriately, induce changes in strategists' mental models (Healey and Hodgkinson, 2008; Hodgkinson and Healey, 2008; van der Heijden *et al.*, 2002). Considering multiple hypothetical futures induces effortful mental simulations that can stretch individual and collective thinking (Schoemaker, 1993). In contrast, some forms of analytical tool, such as the traditional SWOT analysis, may be more familiar, requiring participants to articulate existing knowledge rather than have their assumptions actively questioned. Hence, we predict:

*H5d:* Workshops involving analytical techniques directed specifically toward stimulating cognitive change will be associated with perceived cognitive outcomes that are more positive than workshops that do not involve such techniques.

## **Method**

### *Sample and procedure*

We tested our hypotheses by means of a questionnaire survey distributed to a stratified random sample of 8,000 members of the UK's Chartered Management Institute (CMI). CMI membership spans all levels of management, from trainee to senior executive, across a range

of sectors, and thus constitutes a suitably wide cross-section of UK managers for testing the hypotheses. The survey instrument assessed the design features and outcomes pertaining to the most recent workshop in which respondents had participated, as well as background questions about the host organization and a number of questions beyond the scope of the present hypotheses.<sup>1</sup> By requesting factual responses regarding the design features of a specific target event we sought to reduce potential response bias, thus improving data accuracy (Mezias and Starbuck 2003; Starbuck and Mezias, 1996).

We received 1,337 returns (a response rate of 16.71%). We removed from further analysis respondents who had not participated in a workshop in their current organization (34%), because individuals who had since departed the organization that hosted the workshop may have been less able to provide accurate data. Excluding these respondents and several others with missing values yielded a total of 712 valid participants, whose data were retained for further analysis. Respondents' organizations varied in size from SMEs to large multinationals, operating in a range of industries. Sixty seven per cent were service organizations; the remainder were manufacturing firms. The average time elapsed since the focal workshop took place was 8.9 months (standard deviation of 10.8). To check for response bias, we compared responses included and excluded from the final sample. Multivariate analysis of variance (MANOVA), adopting Wilks' Lambda, revealed no statistically significant differences in workshop outcomes between those included and excluded ( $F_{(1, 775)} = 1.17$ , n.s.). Furthermore, although executives dominated the sample (senior managers = 48%, company directors = 39%) relative to middle managers (13%), the former did not perceive workshop outcomes significantly differently from the latter ( $F_{(2, 711)} = 1.91$ , n.s.).

---

<sup>1</sup> Interested readers can obtain a copy of the survey instrument by contacting the authors.

## *Measures*

We used perceptual self-report measures to assess our dependant variables concerning the focal workshop outcomes for two reasons. First, there are no independent, objective measures of workshop outcomes currently available. Second, objective measures might not capture the relevant outcomes of strategic planning activities (Pearce *et al.*, 1987), a highly likely scenario in the present case, given the specificity of the outcomes we posited (e.g. impact of the focal workshop on the business plan, improvements in interpersonal relations, and influence on understanding of strategic issues).<sup>2</sup>

In contrast, we used objective self-report indicators for the majority of our independent variables (e.g. workshop duration in days, whether an external or internal facilitator led the event). By using respectively factual and perceptual indicators of design characteristics and workshop outcomes, we sought to foster psychological separation between predictors and dependent variables, thereby minimizing potential problems due to common method variance (Podsakoff *et al.*, 2003).

*Workshop outcomes.* In line with our theorizing, we assessed three types of outcome: organizational, interpersonal and cognitive. Table 1 shows the item wordings, which emphasized the distinction between the three sets of outcomes.

Four items measured organizational outcomes. Specifically, we asked participants to rate the impact of the focal workshop upon the following aspects of their organization: the business plan/strategy, vision/mission statement, corporate values, and business processes. These aspects constitute key organizational dimensions of strategic planning (Brews and Hunt, 1999; Brews and Purohit, 2007; Grant, 2003). Items were scored on a five-point, bipolar impact scale (1 = ‘very negative’ to 5 = ‘very positive’).

---

<sup>2</sup> A number of strategy process studies have adopted self-report instruments to assess dependent variables similar to ours, such as perceived strategic planning benefits (Gerbing, Hamilton and Freeman, 1990) and satisfaction with strategic decisions (Kim and Mauborgne, 1993).

We used four items to measure interpersonal outcomes. Respondents rated the impact of the focal workshop from a personal perspective on their relationships with senior managers, colleagues, junior managers, and lower-level employees. Field observations suggest that workshops can and often do affect relationships among these internal groups (Hodgkinson and Wright, 2002; Johnson et al., 2010; Van der Hiejden, 1996). These items were scored on the same 5-point scale used to assess organizational outcomes.

Finally, we measured cognitive outcomes with four items that asked participants to reflect on how the focal workshop had affected their own understanding of key strategic issues. Respondents indicated whether the event had improved their understanding of the organization's future plans, products and services, other departments' activities, and competitor activity. These issues are central to manager's understanding of strategy and they are often the focus of strategic planning exercises (Brews and Purohit, 2007; Porter, 1985; Powell, 1992). Items were scored on a 5-point Likert scale (1 = 'strongly disagree' to 5 = 'strongly agree'). As shown in Table 1, reliabilities for all three scales were adequate, given Nunnally's (1978, p. 245) advice that for "hypothesized measures of a construct ... reliabilities of .70 or higher will suffice".

*Goal clarity.* Goal clarity was measured using a 5-point Likert scale on which respondents reported the extent to which the objectives of the focal workshop were clearly communicated beforehand (1='strongly disagree' to 5='strongly agree').

*Purpose.* We assessed the purpose of the focal workshop by dummy variable coding whether it was undertaken primarily for the purposes of formulation (1=formulation, 0=implementation/other) or implementation (1=implementation, 0=formulation/other), based on a list of 10 reasons for holding the workshop (e.g. 'to formulate new strategy', 'to plan strategy implementation', 'to examine blockages to strategy implementation').

*Routinization: removal and serialization.* To measure the focal workshop's degree of removal from everyday organizational activities, we derived a summated scale from three items assessing: the workshop's relatedness to the organization's strategic planning system (0=related, 1=unrelated), the location at which the workshop was held (0=in-house, 1 =off-site), and who led it (0=internal leader, 1=external leader). Summing responses to these three items gave each workshop a removal score ranging from 0 to 3, where 0 = low removal and 3 = high removal. By way of illustration, a highly removed workshop was unrelated to the strategic planning system, held off-site and led by someone external to the organization. To measure serialization, i.e. whether the focal workshop was part of a concerted effort rather than a stand-alone event, we recorded the number of workshops in the series (1='one-off event', 2='2-3', 3='4-5', 4='6 or more').

*Involvement and participation.* We assessed stakeholder involvement by summing the total number of stakeholder groups involved in the focal workshop (ranging from 0 to 9: 'employees', 'line managers', 'middle managers', 'senior managers', 'executive directors', 'non-executive directors', 'consultants', 'suppliers', 'customers'). To measure group size, we recorded the number of participants in the event (1='1-3' to 6= '26 or more') and computed the squared term of this number to examine the hypothesized curvilinear effects.

*Cognitive effort.* Four indicators served as proxies for the degree of cognitive effort expended on the focal workshop. The first two indicators captured the amount of preparation undertaken (1= 'none' to 6='1 week') and the total duration of the workshop (1='half a day' to 6='over 5 days'), while the third assessed the total number of strategy tools employed in the event.

Participants selected applicable tools from a menu of 11 of the most common techniques.<sup>3</sup>

The fourth indicator, devised to test H5d, assessed the nature of tools deployed. For this

---

<sup>3</sup> The complete list of tools assessed was as follows: Porter's five forces, SWOT analysis, BCG matrix, scenario planning, competencies analysis, cultural web, McKinsey's 7 Ss, stakeholder analysis, market segmentation, value chain analysis, and PEST(EL) analysis. Recent studies show that these are among the most commonly deployed strategic analysis tools (Jarrett and Stiles, 2009; Jarzabkowski *et al.*, 2013; Wright *et al.*, 2013).

purpose, given its theorized role in stimulating learning (Healey and Hodgkinson, 2008; Hodgkinson and Healey, 2008; Schoemaker, 1993; van der Heijden *et al.*, 2002), we dummy coded usage of scenario planning as a proxy for cognitively challenging tool use.

*Control variables.* We included several control variables that might affect the hypothesized relationships. To control for potential industry and sector differences in strategic planning (Powell, 1992), we coded whether the host organization was a manufacturing or service organization (industry) and whether it was in the public or private sector (sector). To account for potential differences in strategic planning between large and small firms (Miller and Cardinal, 1994), we also controlled for organizational size (combined standardized mean for number of employees and financial turnover). To partial out the potential halo effects of inferring workshop success from the organization's general status (Feldman, 1986), we controlled for organizations' perceived state of development with two dummy variables: growing = 1 (versus 0 = stable/shrinking) and stable = 1 (versus 0 = growing/shrinking). We used two individual-level controls. First, to check for position bias (Ketokivi and Castener, 2004) we controlled for respondents' managerial level, dummy variable coded as director = 1 (versus 0 = senior/middle manager) and manager = 1 (versus 0 = director/middle manager). Second, we included respondents' role in the event (0 = participant, 1 = facilitator), to control for potential self-serving bias (Clapham and Schwenk, 1991) among those leading workshops.

### *Analysis*

Our analysis involved two major steps. First, we conducted exploratory and confirmatory factor analyses to establish the dimensionality of the dependent variables and verify the three-factor measurement model. Second, we employed hierarchical multiple regression to examine the hypothesized relationships (Cohen *et al.*, 2003).

*Factor analysis.* We evaluated the structure and robustness of our dependant variables via the split-sample validation procedure (Fabrigar *et al.*, 1999; Gerbing and Hamilton, 1996; Mosier,

1951). This involved: (i) splitting the sample into two randomly determined sub-samples of equal size (N=335), (ii) conducting an exploratory factor analysis – principal components analysis (PCA) with Varimax rotation – on the first sub-sample to specify the model pertaining to the 12 dependent variable items, and (iii) fitting the model obtained from the exploratory PCA to the data from the second sub-sample via confirmatory factor analysis.

As Table 1 shows, the PCA produced three interpretable factors with Eigenvalues greater than unity, which together accounted for 57% of the total variance.<sup>4</sup> The resulting factor structure is in line with the tripartite model of workshop outcomes enumerated above: Factor 1 reflects organizational outcomes, Factor 2 reflects interpersonal outcomes, and Factor 3 reflects cognitive outcomes.

-----  
Insert Tables 1 and 2 here  
-----

Next, we used the hold-out sub-sample to validate the fit of the three-factor model, via confirmatory factor analysis. Table 2 shows the results. The basic means of assessing model fit is via the overall chi-square goodness of fit index. However, because the chi-square is notoriously over-sensitive (i.e. it detects any small misspecification in a model if the sample is large enough; see Hu and Bentler, 1998), researchers more typically rely on the ratio of the chi-square to the degrees of freedom. Researchers have recommended ratios as low as 2 and as high as 5 to indicate reasonable fit (Marsh and Hocevar, 1985). Hence, the observed  $\chi^2/\text{df}$  ratio of 2.97 for the hypothesized model is within the acceptable range. Of the various other indices available for evaluating model fit, Gerbing and Anderson (1992) advocate three specific indices on the basis of Monte Carlo evidence: the incremental fit index (IFI) (also known as the DELTA-2 index), the relative non-centrality index (RNI), and the comparative fit index (CFI). In the present case, the IFI, RNI and CFI values (all .93) were above the

---

<sup>4</sup> Preliminary testing confirmed that the data were suitable for factoring: Bartlett's Test for Sphericity was significant ( $\chi^2 = 981.54$ ,  $p < .001$ ), while the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (= .909) was well above the 0.60 threshold advocated by Tabachnick and Fidell (2007).



traditional threshold of .90 (Bentler and Bonnet, 1980; Marsh, Hau and Wen, 2004), again indicating acceptable model fit. Moreover, the root mean square error of approximation (RMSEA) of .07 was within the acceptable range of  $\leq .08$  suggested by Browne and Cudeck (1993), a further indication of acceptable fit for the hypothesized model.

We also evaluated the comparative fit of the hypothesized three-factor model against two comparatively parsimonious alternatives: a basic model in which all items loaded on a single factor and a two-factor model in which four ‘people-related’ items loaded on one factor and the remaining eight items loaded on a ‘strategy’ factor. The respective fit indices and chi-square difference scores reported in Table 2 show that the hypothesized model provided a significantly better fit than its rivals.

## **Results**

Table 3 reports descriptive statistics and inter-correlations and Table 4 reports the regression results. Following Schwab *et al.*, (2011), we include confidence intervals to provide precise estimates and report both unstandardized and standardized regression coefficients to convey effect size information.

Supporting Hypothesis 1, clarity of workshop objectives proved to be the single most important predictor of workshop effectiveness and was associated positively with all three workshop outcomes at the  $p < 0.001$  level (all  $\beta$ s  $\geq 0.24$ ). Hypothesis 2a, in contrast, was not supported; workshops undertaken for purposes of formulation, as opposed to implementation, were not significantly more likely to be associated with positive cognitive outcomes ( $\beta = 0.01$ , n.s.). Supporting Hypothesis 2b, however, workshops undertaken for purposes of implementation, as opposed to formulation, were significantly more likely to be associated with positive organizational outcomes ( $\beta = 0.08$ ,  $p < 0.05$ ). As Table 4 shows, the results generally support our arguments regarding the effects of routinization. Only Hypothesis 3a, which predicted a positive relationship between removal and cognitive outcomes, was not

supported ( $\beta = -0.05$ , n.s.). In contrast, the relationship between removal and organizational outcomes was negative and significant ( $\beta = -0.08$ ,  $p = 0.05$ ), supporting Hypothesis 3b. Hypotheses 3c and 3d, which predicted respectively that serialization would be associated positively with cognitive ( $\beta = 0.12$ ,  $p < 0.01$ ) and organizational ( $\beta = 0.10$ ,  $p < 0.01$ ) outcomes, were also supported.

-----  
 Insert Tables 3 and 4 here  
 -----

Our results also support Hypothesis 4a, which predicted that wider stakeholder involvement would be associated positively with interpersonal outcomes ( $\beta = 0.09$ ,  $p < 0.05$ ). In terms of the effects of group size, although a significant curvilinear relationship between group size and interpersonal outcomes is evident ( $\beta = 0.11$ ,  $p < 0.05$ ), it is in the opposite direction to that theorized. Specifically, small workshops (1-3 and 4-6 persons) and large workshops (more than 25 persons) were associated with superior outcomes as compared with intermediate-sized workshops (7-10, 11-15, and 16-25 persons). Hence, Hypothesis 4b is not supported.<sup>5</sup>

In terms of the effects of cognitive effort, as theorized, both preparation ( $\beta = 0.10$ ,  $p < 0.01$ ) and duration ( $\beta = 0.09$ ,  $p < .05$ ) were associated positively with cognitive outcomes, supporting Hypotheses 5a and 5b respectively. Although the number of tools deployed (Hypothesis 5c) was not significantly related to cognitive outcomes ( $\beta = 0.03$ , n.s.), the *type* of tools deployed does seem to matter. Specifically, the use of scenario planning was associated positively and significantly with the attainment of cognitive outcomes ( $\beta = 0.12$ ,  $p$

---

<sup>5</sup> Closer inspection of the data suggested that a more appropriate way to describe the effect of group size is in terms of the contrast between small and large workshops. Accordingly, we ran a one-way analysis of covariance (ANCOVA), in which we entered the full set of control variables as covariates. The independent variable comprised a two-level group size factor formed by recoding the original group sizes, such that small groups (1-3, 4-6, 7-10 persons) were coded as 0 and large groups (11-15, 16-25 and 25+ persons) as 1. The results showed that small workshops produced significantly more positive interpersonal outcomes ( $F_{(1, 781)} = -4.97$ ,  $p < .05$ ). This finding is consistent with the idea that small group exercises are less prone to conflict and are thus more beneficial to interpersonal relations (Amason and Sapienza, 1997).

< 0.01), thus supporting Hypothesis 5d.<sup>6</sup>

### *Robustness checks*

Following the guidelines of Lindell and Whitney (2001) and Podsakoff *et al.* (2003), we employed three statistical procedures to test for common method variance (CMV). First, we used Harman's one-factor test. The results showed that no single common method factor represented adequately the data; rather, numerous factors were required to account for the majority of the covariance.<sup>7</sup> Second, following Podsakoff *et al.* (2003), we re-ran each of our three substantive regression models, partialling-out the effects of the putative method factor by entering scale scores for the first common factor as a covariate in the regression analyses. The results showed that including this control variable exerted no significant influence on the pattern of relations among the predictor and dependent variables.<sup>8</sup> Third, we used the marker variable technique advocated by Lindell and Whitney (2001) for controlling for CMV in cross-sectional research designs. We selected a marker variable theorized to be unrelated to the predictor and dependent variables, namely, an item assessing respondents' job tenure (all  $r$ 's  $\leq 0.07$ , n.s.). Next, we re-ran each of the regression models, entering the marker variable as a control to make the partial correlation adjustment. All of the beta coefficients that were significant in the original analyses remained significant after controlling for the marker variable. Overall, the results of these checks confirm that the relations observed between our predictor and outcome variables cannot simply be attributed to CMV.

---

<sup>6</sup> To check whether other analytical tools were similarly associated with positive cognitive outcomes, we tested an additional regression model incorporating the two most commonly reported analytical tools, namely SWOT analysis and stakeholder analysis, as dummy variable predictors. Inserting these predictors ahead of scenario planning, neither variable was associated significantly with cognitive outcomes ( $\beta$ s < 0.06, n.s.), while the effect of scenario planning remained statistically significant ( $\beta = 0.11$ ,  $p < 0.05$ ).

<sup>7</sup> The unrotated factor solution of all variables revealed 8 factors with eigenvalues greater than unity. The first factor accounted for only 13% of the total variance, with subsequent factors accounting for monotonically decreasing proportions of variance (2<sup>nd</sup> factor = 11%, 3<sup>rd</sup> = 9% ... 8<sup>th</sup> = 5%; the 8 factors combined explained 62% of total variance).

<sup>8</sup> For the three models tested, the overall effect of partialling out the common method factor was to reduce negligibly the size of the beta coefficients for the predictors (the average change across all coefficients was a mere 0.01).

## Discussion

Many organizations view strategy workshops as a means of stepping back from the daily grind to consider wider issues critical to their future (Campbell *et al.*, 2003; Frisch and Chandler, 2006; Hodgkinson *et al.*, 2006). Despite their popularity, we know little about the outcomes of these events or the factors that influence those outcomes. Most prior studies have been small-scale, adopted an undifferentiated view of workshop outcomes, and/or have focused on a limited subset of success factors (Hodgkinson and Wright, 2002; Johnson *et al.*, 2010; Whittington *et al.*, 2006). The present study addressed these limitations by: (i) providing evidence from a large sample, (ii) presenting a new model of workshop outcomes, and (iii) confirming a series of hypothesized relationships between basic design characteristics and different outcomes. Below, we discuss the implications of our findings for understanding the generative mechanisms of workshop effectiveness (and possibly other types of strategic episode) and suggest ideas for further research.

### *Re-conceptualizing the outcomes of strategy workshops*

Research to date has equated the success of workshops and related strategic episodes with direct contributions to the organization's overriding strategic direction (Hendry and Seidl, 2003; Hodgkinson and Wright, 2002; Jarzabkowski, 2003; Whittington *et al.*, 2006), be that initiating strategic change or bolstering strategic continuity (cf. Johnson *et al.* 2010). Based on a conceptual analysis of the literature, supported by factor analyses of our dataset, we have articulated a three-dimensional model that can reveal nuances of workshop effectiveness missed by unitary conceptions. While our findings corroborate that influencing organizations' overriding mission and business plan/strategy is a key indicator of effectiveness, we have identified two additional indicators, namely, interpersonal and cognitive outcomes. Building on recent advances in the study of strategic episodes (Jarzabkowski *et al.*, 2007; Jarzabkowski and Seidl, 2008; Maitlis and Lawrence, 2003), future research should explore the extent to

which our tripartite model captures the outcomes of other types of episode, such as management meetings, boardroom decisions and group strategy projects.

The claim that workshops leave few lasting effects may be accurate if one is looking for major organizational change as a direct result; such outcomes may well be exceptional (cf. Frisch and Chandler, 2006; Lorsch and Clark, 2008). However, our findings indicate that the absence of such impact does not necessarily equate with failure. Before reaching such a conclusion, it is essential to consider softer outcomes, in particular the effects on interpersonal relations and strategic understanding. This more fine-grained view of workshop outcomes should help inform future research analyzing how this particular type of episode contributes to the ongoing socio-cognitive processes of strategizing.

#### *Antecedents of workshop effectiveness*

Whereas previous research focuses on a relatively narrow set of workshop success factors (Hodgkinson and Wright, 2002; Johnson *et al.*, 2010; Whittington *et al.*, 2006), we adopted a design science approach to identify a wider set of antecedent variables and attendant generative mechanisms. In so doing, our study has shed new light on some of the key questions about this particular type of strategic episode raised by strategy-as-practice theorists, regarding who gets involved in these events and what provision should be made in advance to maximize productive outcomes (Hendry and Seidl, 2003; Jarzabkowski, 2003; Johnson *et al.*, 2003; Whittington, 2006a). In particular, our findings demonstrate that four design characteristics – goal clarity, routinization, stakeholder involvement, and the degree of cognitive effort induced – each play important, complementary roles.

Our finding that the clear communication of objectives beforehand constitutes the most important predictor of all three outcomes extends goal setting theory (e.g. Locke and Latham, 1990; Latham and Pinder, 2005) to the context of workshops, providing important clues regarding a key generative mechanism for producing effective events. Although

previous studies focus on the benefits of sharing strategic goals for wider organizational functioning (Jarzabkowski and Balogun, 2009; Ketokivi and Castaner, 2004), our results extend this principle to a more micro-level by demonstrating that communicating clear objectives is equally important for success in specific strategizing episodes (Hendry and Seidl, 2003).

We also observed the effects of goals in terms of the basic purpose of workshops. Specifically, workshops undertaken with the explicit intention of aiding strategy implementation were more likely to yield noticeable organizational outcomes. In contrast, our findings suggest that for workshops designed to help formulate strategy, there is a high risk of losing the intangible insights and solutions produced (cf. Grinyer, 2000; Mezias *et al.*, 2001; van der Heijden, *et al.*, 2002). Given the difficulty of transferring the outcomes of strategic episodes into wider organizational action (Bourque and Johnson, 2008; Hendry and Seidl, 2003; Johnson *et al.*, 2010), there appears a particular need to understand how to capture the outcomes of formulation-focused workshops. A related need is to develop better measures of the cognitive outcomes of formulation-related episodes, so that these events are not judged automatically as unsuccessful when they ‘fail’ to translate into direct organizational action (cf. Hodgkinson and Wright, 2002, 2006; Whittington, 2006a, 2006b). More generally, given that formulation and implementation workshops appear to produce different outcomes, our findings suggest that it is important not only to communicate objectives clearly but also to explain the differing objectives for formulation and implementation events so that participants can prepare effectively and understand what to expect in terms of intended outcomes.

A defining characteristic of strategy workshops – evident in their depiction as ‘away-days’ or ‘strategy retreats’ – is the set of design features used to remove proceedings from everyday organizational routines. A common view is that these features free managers from the habitual strictures that hinder authentic strategic debate, thereby stimulating innovative

thinking. Creativity research (Elsbach and Hargadon, 2006; Kaplan and Kaplan, 1983) and the practitioner literature (e.g. Campbell, Liteman, and Sugar 2003; Frisch and Chandler, 2006; van der Heijden *et al.*, 2002) support this view. However, conceiving workshops as a form of ritual suggests that these features distance the outputs of creative endeavours from the practical realities imposed by everyday routines and practices (Bourque and Johnson, 2008; Johnson *et al.*, 2010), thus reducing the likelihood of workshop decisions reaching back into organizational life. On balance, our results support an unfavourable view of removal. In line with ritual theory, we observed a negative association between removal and organizational outcomes. Hence, there is a clear need to identify means of integrating valuable workshop outcomes into the wider organization. Although we failed to find the theorized positive cognitive effects of removal, we leave open the possibility that more sophisticated instruments might detect the putative cognitive benefits.

Given the apparently restrictive role of removal, features that strengthen the links between workshops and the fabric of the organization should prove beneficial. Our findings support this notion. Specifically, and in line with MacIntosh *et al* (2010), we found that organizing workshops as a series of events increases the likelihood of attaining positive organizational and cognitive outcomes. This finding supports the idea that ‘serialization’ amplifies the time and energy focused on particular strategic issues, increasing the likelihood of learning, while providing the requisite space to build commitment to new ideas. Hence, an important implication is that if the goal is to achieve high levels of cognitive challenge, a series of workshops is likely to be more effective than a single event. Future research might examine the optimum design for series of workshops (e.g. starting small to formulate ideas and then using large groups to implement, or starting large to generate ideas and then using small groups to refine them). Understanding potential spill-over effects from one episode to another in series of workshops is another objective for future research.

Our findings also contribute to the literature on widening participation in key strategic episodes such as workshops. Consistent with this growing line of inquiry (Hutzschenreuter and Kleindienst, 2006; Ketokivi and Castaner, 2004; Korsgaard *et al.*, 2002; Wooldridge, Schmid and Floyd, 2008), we found a positive association between the breadth of stakeholder involvement and improved interpersonal relations among workshop participants. The importance of stakeholder involvement supports the idea that building social cohesion among decision makers is an essential function of workshops. Our results show that small group workshops appear particularly effective as a bonding mechanism. However, as Jarzabkowski and Balogun (2009) observe, simply bringing people together may not automatically produce harmony. Hence, further research is needed to uncover the social dynamics responsible for the effects found here. One promising avenue is to undertake in-depth qualitative analyses of how users overcome subgroup conflict and foster cohesion within strategic episodes (Hodgkinson and Healey, 2008).

The present findings show that workshops designed to stimulate higher levels of cognitive effort – as indicated by the amount of preparation, time dedicated to the focal event, and the use of cognitively challenging analytical techniques – were associated with perceived improvements in the understanding of strategic issues. These findings fit with the idea that effortful information processing is an important mechanism underpinning strategic learning (Barr *et al.*, 1992; Hodgkinson *et al.*, 1999; Louis and Sutton, 1991; Reger and Palmer, 1996). The findings suggest that choosing the ‘right’ analytical techniques is also important. Of the popular techniques deployed, only scenario planning was associated with positive cognitive outcomes. Although advocates have long claimed that scenarios yield unique learning effects (Schoemaker, 1993; van der Hiejden *et al.*, 2002) this is the first large-scale field study to lend empirical support to those claims. Going forward, since our measure of tool use was crude, being restricted to the number and type of tools deployed, future research might adopt detailed



field methods (cf. Jarratt and Stiles, 2010; Jarzabkowski and Seidl, 2008; Langley, 1989; Whittington et al., 2006) to explore exactly how and why certain tools are used.

### *Implications for practice*

Although we demonstrated various statistically significant relationships between workshop design characteristics and outcomes, the effects of individual predictors were generally small in magnitude. By way of illustration, decreasing the degree of workshop removal by one unit would improve organizational outcomes by 0.04 units on a five-point scale (see Table 4). In contrast, however, clarity of objectives was the predictor of greatest practical significance, for which a one-unit increase would improve organizational outcomes by 0.23 units on a five-point scale, which is approximately one quarter of the difference between having no impact and having a positive impact. Because individual variables tended to exert small effects, designers should attend to multiple features. For instance, we highlighted four predictors of organizational outcomes that together explain 16% of the variance in the perceived impact on firms' strategic plans and business processes.

Given that the effects we found are small and difficult to interpret in practical terms, we call for two things in future work. First, researchers should consider objective measures of workshop outcomes that are practically meaningful (e.g. number of tangible new initiatives resulting from a given workshop, changes in communication frequency among participants). Second, operationalizing more precisely the constructs outlined here might help uncover stronger relationships (i.e. larger effects) between design characteristics and outcomes. For instance, to assess better the effects of cognitive effort, future research might measure the amount of time spent on challenging strategic analyses or employ direct measures of the extent of divergent thinking.

### *Limitations*

We cannot rule out the possibility that the use of self-report measures in our study may have

over- or under-estimated the actual workshop outcomes realized. Therefore, future studies should adopt objective indicators, particularly of harder outcomes such as tangible changes in the organization's strategic direction. Although it is more difficult to measure objectively the softer outcomes we identified, a combination of behavioural measures for the assessment of interpersonal outcomes (e.g. pre-versus post-event changes in communications among attendees) and factual knowledge tests for the assessment of cognitive outcomes would represent a significant step forward. In addition, since directors and managers comprised the majority of our sample, it remains to be seen whether lower-level employees view workshop outcomes similarly. Finally, given our study's cross-sectional design, we were unable to draw valid inferences about causal relations among workshop characteristics and outcomes. Future work using longitudinal designs would permit more robust claims. One promising option would be to measure design features prior to and during the workshop and assess outcomes with objective measures at a later point in time.

## **Conclusion**

Our study demonstrates the value of distinguishing the often-overlooked interpersonal and cognitive outcomes of strategy workshops from their impact on organizations' strategic direction. Moreover, it provides evidence that four basic workshop design characteristics are important differentially to the three types of outcomes. Although clear goals are important to all types of outcome, attaining organizational outcomes depends more on design characteristics concerning routinization, whereas interpersonal outcomes rely on those concerning involvement and cognitive outcomes depend on those concerning cognitive effort. We hope our findings provide the signposts required to guide much-needed future studies of these widespread strategic episodes.

## References

- Amason, A. C. (1996). 'Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams', *Academy of Management Journal*, **39**, pp. 123-148.
- Amason, A. C. and H. J. Sapienza (1997). 'The effects of top management team size and interaction norms on cognitive and affective conflict', *Journal of Management*, **23**, pp. 495-516.
- Anson, R., R. Bostrom and B. Wynne (1995). 'An Experiment Assessing Group Support System and Facilitator Effects on Meeting Outcomes', *Management Science*, **41**, pp. 189-208.
- Barr, P. S., J. L. Stimpert and A. S. Huff (1992). 'Cognitive Change, Strategic Action, and Organizational Renewal', *Strategic Management Journal*, **13**, pp. 15-36.
- Bentler, P. M. and Bonnett, D. G. (1980). 'Significance tests and goodness of fit in the analysis of covariance structures', *Psychological Bulletin*, **88**, pp. 588-606.
- Bourque, N. and G. Johnson (2008) 'Strategy workshops and away days as ritual', in G. Hodgkinson and B. Starbuck (Eds.), *The Oxford Handbook of Organizational Decision Making*. Oxford: Oxford University Press, pp. 552-564.
- Bowman, C. (1995), 'Strategy workshops and top team commitment to strategic change', *Journal of Managerial Psychology*, **10**, pp. 4-12.
- Browne, M. W. and Cudeck, R. (1993). 'Alternative ways of assessing model fit.' In K. A. Bollen and J. S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park, CA: Sage.
- Campbell, S., M. Liteman and S. Sugar (2003). *Retreats that work: Designing and conducting effective offsites for groups and organizations*, Jossey-Bass/Pfeiffer, San Francisco.
- Christensen, C. M. (1997). 'Making strategy: Learning by doing', *Harvard Business Review*, **75**, pp. 141-156.
- Clapham, S. E. and C. R. Schwenk (1991). 'Self-Serving Attributions, Managerial Cognition, and Company Performance', *Strategic Management Journal*, **12**, pp. 219-229.
- Cohen, J., P. Cohen, S. G. West and L. S. Aiken (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, Lawrence Erlbaum, Mahwah, NJ.
- Cohen, S. G. and D. E. Bailey (1997). 'What makes teams work: Group effectiveness research from the shop floor to the executive suite', *Journal of Management*, **23**, pp. 239-290.
- De Dreu, C. K. W. and L. R. Weingart (2003). 'Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis', *Journal of Applied Psychology*, **88**, pp. 741-749.
- Doz, Y. and Prahalad, G. K. (1987). 'A process model of strategic redirection in large complex firms: the case of multinational corporations'. In Pettigrew A. (Ed.), *The Management of Strategic Change*. Oxford: Blackwell, pp. 63-82.
- Dunbar, R. L. M. and W. H. Starbuck (2006). 'Learning to design organizations and learning from designing them', *Organization Science*, **17**, pp. 171-178.
- Eden, C. and F. Ackermann (1998). *Making strategy: The journey of strategic management*, Sage, London.

- Elsbach, K. D. and A. B. Hargadon (2006). 'Enhancing creativity through "mindless" work: A framework of workday design', *Organization Science*, **17**, pp. 470-483.
- Fabrigar, L. R. Wegener, D. T. MacCullum, R. C. and Strahan, E. J. (1998). 'Evaluating the use of exploratory factor analysis in psychological research', *Psychological Methods*, **4**, pp. 272-299.
- Fahey, L. and H. K. Christensen (1986). 'Evaluating the Research on Strategy Content', *Journal of Management*, **12**, pp. 167-183.
- Feldman, J. M. (1986). 'A Note on the Statistical Correction of Halo Error', *Journal of Applied Psychology*, **71**, pp. 173-176.
- Fiol, C. M. (1994). 'Consensus, Diversity, and Learning in Organizations', *Organization Science*, **5**, pp. 403-420.
- Floyd, S. W. and P. J. Lane (2000). 'Strategizing throughout the organization: Managing role conflict in strategic renewal', *Academy of Management Review*, **25**, pp. 154-177.
- Frisch, B. and L. Chandler (2006). 'Off-sites that work', *Harvard Business Review*, **84**, pp. 117-126.
- Gaertner, S. L., J. F. Dovidio, J. A. Mann, A. J. Murrell and M. Pomare (1990). 'How Does Cooperation Reduce Intergroup Bias', *Journal of Personality and Social Psychology*, **59**, pp. 692-704.
- Galinsky, A. D., G. L. Ku and C. S. Wang (2005). 'Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination', *Group Processes and Intergroup Relations*, **8**, pp. 109-124.
- Gerbing, D. W. and Anderson, J. C. (1992). 'Monte-Carlo evaluations of goodness of fit indexes for structural equation models', *Sociological Methods and Research*, **21**, pp. 132-160.
- Gerbing, D. W. and Hamilton, J. G. (1996). 'Viability of Exploratory Factor Analysis as a Precursor to Confirmatory Factor Analysis'. *Structural Equation Modeling: A Multidisciplinary Journal*, **3**, pp. 62-72.
- Gerbing, D. W., Hamilton, J. G., and Freeman, E. B. (1994). 'A large-scale 2<sup>nd</sup> order structural equation model of the influence of management participation on organizational planning benefits'. *Journal of Management*, **20**, pp. 859-885.
- Grant, R. M. (2003). 'Strategic planning in a turbulent environment: Evidence from the oil majors', *Strategic Management Journal*, **24**, pp. 491-517.
- Grinyer, P. H. (2000). 'A cognitive approach to group strategic decision taking: A discussion of evolved practice in the light of received research results', *Journal of the Operational Research Society*, **51**, pp. 21-35.
- Healey, M. P. and G. P. Hodgkinson (2008). 'Troubling futures: Scenarios and scenario planning for organizational decision making'. In: G. P. Hodgkinson and W. H. Starbuck (eds.), *Oxford Handbook of Organizational Decision Making*, pp. 565-585. Oxford: Oxford University Press.
- Hendry, J. and D. Seidl (2003). 'The structure and significance of strategic episodes: Social systems theory and the routine practices of strategic change', *Journal of Management Studies*, **40**, pp. 175-196.

- Higgins, M. C., J. Weiner and L. Young (2012). 'Implementation teams: A new lever for organizational change', *Journal of Organizational Behavior*, **33**, pp. 366-388.
- Hodgkinson, G. P. and I. Clarke (2007). 'Exploring the cognitive significance of organizational strategizing: A dual-process framework and research agenda', *Human Relations*, **60**, pp. 243-255.
- Hodgkinson, G. P. and M. P. Healey (2008). 'Toward a (pragmatic) science of strategic intervention: Design propositions for scenario planning', *Organization Studies*, **29**, pp. 435-457.
- Hodgkinson, G. P., Bown, N. J., Maule, A. J., Glaister, K. W., and Pearman, A. D. (1999). Breaking the frame: An analysis of strategic cognition and decision making under uncertainty. *Strategic Management Journal*, **20**, pp. 977-985.
- Hodgkinson, G. P. and Maule, A. J. (2002). 'The individual in the strategy process: Insights from behavioural decision research and cognitive mapping'. In A S Huff and M Jenkins (Eds.), *Mapping Strategic Knowledge* (pp. 196-219). London: Sage.
- Hodgkinson, G. P. and K. Starkey (2011). 'Not Simply Returning to the Same Answer Over and Over Again: Reframing Relevance', *British Journal of Management*, **22**, pp. 355-369.
- Hodgkinson, G. P. and Starkey, K. (2012). 'Extending the foundations and reach of design science: Further reflections on the role of critical realism'. *British Journal of Management*, **23**, pp. 605-610.
- Hodgkinson, G. P., R. Whittington, G. Johnson and M. Schwarz (2006). 'The Role of Strategy Workshops in Strategy Development Processes: Formality, Communication, Coordination and Inclusion', *Long Range Planning*, **39**, pp. 479-496.
- Hodgkinson, G. P. and G. Wright (2002). 'Confronting strategic inertia in a top management team: Learning from failure', *Organization Studies*, **23**, pp. 949-977.
- Hodgkinson, G. P., and Wright, G. (2006). Neither completing the practice turn, nor enriching the process tradition: Secondary misinterpretations of a case analysis reconsidered. *Organization Studies*, **27**, pp. 1895-1901.
- Hu, L. T. and Bentler P. M. (1998). 'Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification', *Psychological Methods*, **3**, pp. 424-453.
- Huff, A. S., Neyer, A. K., and Moslein, K. (2010). Broader methods to support new insights into strategizing. In D. Golsorkhi, and L. Rouleau, and D. Siedl, and E. Vaara (Eds.), *Cambridge Handbook of Strategy as Practice*, pp. 201-216. Cambridge: Cambridge University Press.
- Hogg, M. A. and D. J. Terry (2000). 'Social identity and self-categorization processes in organizational contexts', *Academy of Management Review*, **25**, pp. 121-140.
- Hutzschenreuter, T. and I. Kleindienst (2006). 'Strategy-process research: What have we learned and what is still to be explored', *Journal of Management*, **32**, pp. 673-720.
- Jarratt, D. and D. Stiles (2010). 'How are Methodologies and Tools Framing Managers' Strategizing Practice in Competitive Strategy Development?', *British Journal of Management*, **21**, pp. 28-43.
- Jarzabkowski, P. (2003). 'Strategic practices: An activity theory perspective on continuity and change', *Journal of Management Studies*, **40**, pp. 23-55.

- Jarzabkowski, P. and J. Balogun (2009). 'The practice and process of delivering integration through strategic planning'. *Journal of Management Studies*, **46**, pp. 1255-1288.
- Jarzabkowski, P. and Spee, A. P. (2009). Strategy-as-practice: A review and future directions for the field. *International Journal of Management Reviews*, **11**: 69-95.
- Jarzabkowski, P. and Seidl, D. (2008). The role of meetings in the social practice of strategy. *Organization Studies*, **29**, pp. 1391-1426.
- Jarzabkowski, P., Balogun, J., and Seidl, D. (2007). Strategizing: The challenges of a practice perspective. *Human Relations*, **60**, pp. 5-27.
- Jarzabkowski, P., Giulietti, M. Oliveira, B. and Amoo, N. (2013). We don't need no education – Or do we? Management education and alumni adoption of strategy tools. *Journal of Management Inquiry*, **22**, pp. 4-24.
- Johnson, G., L. Melin and R. Whittington (2003). 'Micro strategy and strategizing: Towards an activity-based view', *Journal of Management Studies*, **40**, pp. 3-22.
- Johnson, G., Langley, A. Melin, L. and Whittington, R. (2007). *Strategy as Practice: Research Directions and Resources*. Cambridge, UK: Cambridge University Press.
- Johnson G., Prashantham S., Floyd S. and Bourque N. (2010), 'The ritualization of strategy workshops', *Organization Studies*, **31**, pp. 1-30.
- Kaplan, S. and R. Kaplan (1982). *Cognition and environment: Functioning in an uncertain world*, Praeger, New York.
- Kerr, N. L. and R. S. Tindale (2004). 'Group performance and decision making', *Annual Review of Psychology*, **55**, pp. 623-655.
- Ketokivi, M. and X. Castaner (2004). 'Strategic planning as an integrative device', *Administrative Science Quarterly*, **49**, pp. 337-365.
- Kim, W. C. and R. A. Mauborgne (1993). 'Procedural Justice, Attitudes, and Subsidiary Top Management Compliance with Multinationals Corporate Strategic Decisions', *Academy of Management Journal*, **36**, pp. 502-526.
- Korsgaard, M. A., H. J. Sapienza and D. M. Schweiger (2002). 'Beaten before begun: The role of procedural justice in planning change', *Journal of Management*, **28**, pp. 497-516.
- Langley, A. 1989. In search of rationality: The purposes behind the use of formal analysis in organizations. *Administrative Science Quarterly*, **34**, pp. 598-631.
- Lant, T. K. and P. F. Hewlin (2002). 'Information cues and decision making - The effects of learning, momentum, and social comparison in competing teams', *Group and Organization Management*, **27**, pp. 374-407.
- Latham, G. P. and C. C. Pinder (2005). 'Work motivation theory and research at the dawn of the twenty-first century', *Annual Review of Psychology*, **56**, pp. 485-516.
- Lindell, M. K. and D. J. Whitney (2001). 'Accounting for common method variance in cross-sectional research designs', *Journal of Applied Psychology*, **86**, pp. 114-121.
- Locke, E. A. and G. P. Latham (1990). *A theory of goal setting and task performance*, Prentice-Hall, Englewood Cliffs, NJ.
- Lorsch, J. W. and R. C. Clark (2008). 'Leading from the boardroom', *Harvard Business Review*, **86**, pp. 104-111.

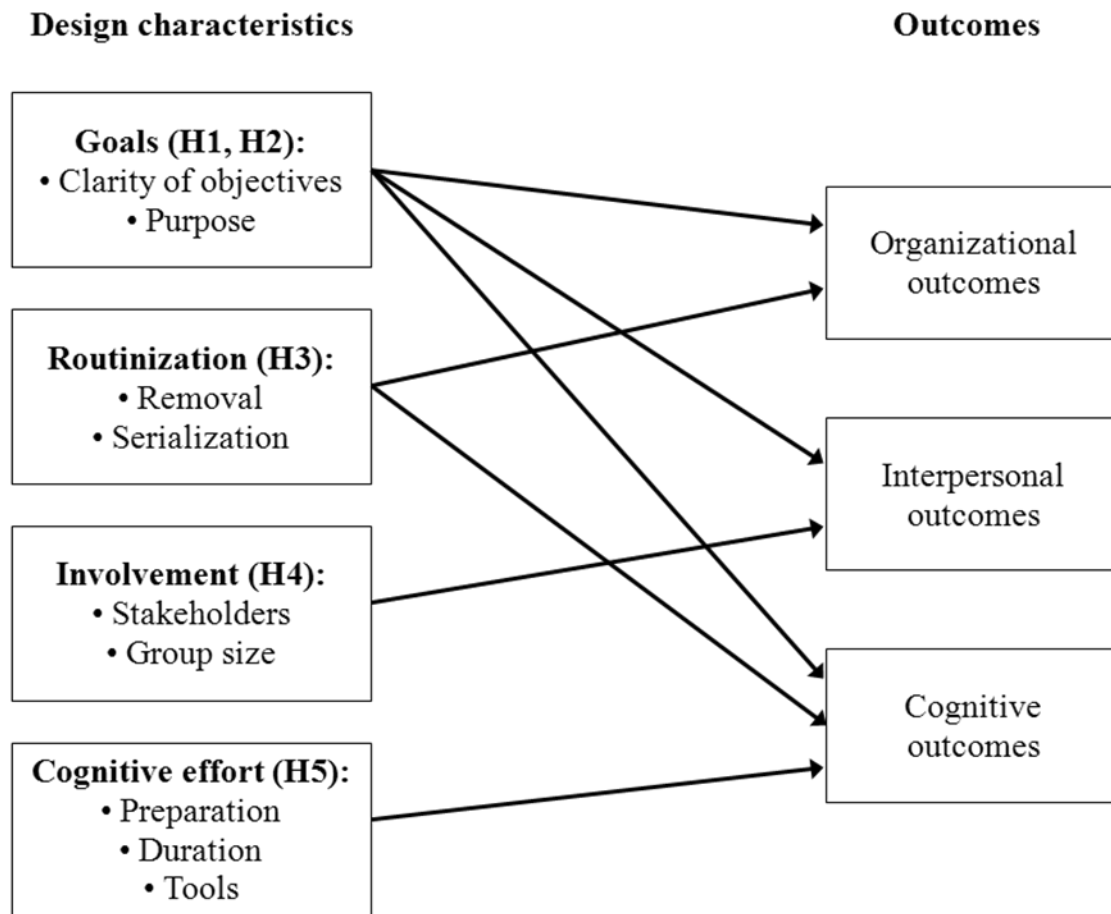
- Louis, M. R. and R. I. Sutton (1991). 'Switching Cognitive Gears - from Habits of Mind to Active Thinking', *Human Relations*, **44**, pp. 55-76.
- MacIntosh R., MacLean, D. and Seidl, D. (2010). 'Unpacking the effectivity paradox of strategy workshops: Do strategy workshops produce strategic change?'. In: Golsorkhi, D. Rouleau, L. Seidl, D. and Vaara, E. (Eds.) *The Cambridge Handbook of Strategy as Practice*, pp. 291-309. Cambridge, UK: Cambridge University Press.
- Maitlis, S. and Lawrence, T. B. (2003). Orchestral manoeuvres in the dark: Understanding failure in organizational strategizing. *Journal of Management Studies*, **40**, pp. 109-139.
- Marsh, H. W. and Hocevar, D. (1985). 'Application of confirmatory factor analysis to the study of self-concept – 1<sup>st</sup> order and higher-order factor models and their invariance across groups', *Psychological Bulletin*, **97**, pp. 562-582.
- Marsh, H. W., Hau, K-T. and Wen, Z. (2004). 'In Search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings', *Structural Equation Modelling*, **11**, pp. 320-341.
- Maule, A. J., Hodgkinson, G. P. and Bown, N. J. (2003). 'Cognitive mapping of causal reasoning in strategic decision making'. In D Hardman and L Macchi (Eds.), *Thinking: Psychological Perspectives on Reasoning, Judgment and Decision Making* (pp. 253–272). Chichester: Wiley.
- Mezias, J. M., and Starbuck, W. H. 2003. Studying the accuracy of managers' perceptions: A research odyssey. *British Journal of Management*, **14**, pp. 3-17.
- Mezias, J. M., P. Grinyer and W. D. Guth (2001). 'Changing collective cognition: A process model for strategic change', *Long Range Planning*, **34**, pp. 71-95.
- Mintzberg, H. (1994). *The rise and fall of strategic planning*, Free Press, New York.
- Mosier, C. I. (1951). 'Problems and designs of cross-validation'. *Educational and Psychological Measurement*, **11**, pp. 5-11.
- Nunnally, J. C. (1978). *Psychometric theory*, McGraw-Hill, New York.
- O'Leary-Kelly, A. M., J. J. Martocchio and D. D. Frink (1994). 'A Review of the Influence of Group Goals on Group-Performance', *Academy of Management Journal*, **37**, pp. 1285-1301.
- Pandza, K. and R. Thorpe (2010). 'Management as Design, but What Kind of Design? An Appraisal of the Design Science Analogy for Management', *British Journal of Management*, **21**, pp. 171-186.
- Pearce, J. A., Freeman, E. B., and Robinson, R. B. (1987). The tenuous link between formal strategic planning and financial performance. *Academy of Management Review*, **12**, pp. 658-675.
- Podsakoff, P. M., S. B. MacKenzie, J. Y. Lee and N. P. Podsakoff (2003). 'Common method biases in behavioral research: A critical review of the literature and recommended remedies', *Journal of Applied Psychology*, **88**, pp. 879-903.
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*, Free Press, New York.

- Powell, T. C. (1992). 'Strategic-Planning as Competitive Advantage', *Strategic Management Journal*, **13**, pp. 551-558.
- Ready, D. A. and J. A. Conger (2008). 'Enabling bold visions', *Mit Sloan Management Review*, **49**, pp. 70-76.
- Reger, R. K. and T. B. Palmer (1996). 'Managerial categorization of competitors: Using old maps to navigate new environments', *Organization Science*, **7**, pp. 22-39.
- Romme, A. G. L. and G. Endenburg (2006). 'Construction principles and design rules in the case of circular design', *Organization Science*, **17**, pp. 287-297.
- Schoemaker, P. J. H. (1993). 'Multiple Scenario Development - Its Conceptual and Behavioral Foundation', *Strategic Management Journal*, **14**, pp. 193-213.
- Schwab, A., Abrahamson, E., Starbuck, W. H., and Fidler, F. 2011. Researchers Should Make Thoughtful Assessments Instead of Null-Hypothesis Significance Tests. *Organization Science*, **22**, pp. 1105-1120.
- Schweiger, D. M., W. R. Sandberg and J. W. Ragan (1986). 'Group Approaches for Improving Strategic Decision-Making: A Comparative Analysis of Dialectical Inquiry, Devils Advocacy, and Consensus', *Academy of Management Journal*, **29**, pp. 51-71.
- Schweiger, D. M., Sandberg, W. R., and Rechner, P. L. (1989). 'Experiential Effects of Dialectical Inquiry, Devils Advocacy, and Consensus Approaches to Strategic Decision-Making'. *Academy of Management Journal*, **32**, pp. 745-772.
- Simon, H. A. (1969). *The sciences of the artificial*, MIT Press, Cambridge, MA.
- Starbuck, W. H. and J. M. Mezias (1996). 'Opening Pandora's box: Studying the accuracy of managers' perceptions', *Journal of Organizational Behavior*, **17**, pp. 99-117.
- Tabachnick, B. G. and L. S. Fidell (2007). *Using Multivariate Statistics*, 5<sup>th</sup> Ed. Allyn and Bacon, Boston, MA.
- van Aken, J. E. (2004). Management research based on the paradigm of the design sciences: The quest for field-tested and grounded technological rules. *Journal of Management Studies*, **41**, pp. 219-246.
- van Aken, J. E. (2005). Management Research as a Design Science: Articulating the Research Products of Mode 2 Knowledge Production in Management. *British Journal of Management*, **16**, pp. 19-36.
- van der Heijden, K. (1996). *Scenarios - The art of strategic conversation*, John Wiley, Chichester.
- van der Heijden, K., R. Bradfield, G. Burt, G. Cairns and G. Wright (2002). *The sixth sense: Accelerating organizational learning with scenarios*, John Wiley, New York.
- van Knippenberg, D., C. K. W. De Dreu and A. C. Homan (2004). 'Work group diversity and group performance: An integrative model and research agenda', *Journal of Applied Psychology*, **89**, pp. 1008-1022.
- Westley, F. R. (1990). 'Middle Managers and Strategy - Microdynamics of Inclusion', *Strategic Management Journal*, **11**, pp. 337-351.
- Whittington, R. (1996). 'Strategy as practice', *Long Range Planning*, **29**, pp. 731-735.
- Whittington, R. (2006a). 'Completing the practice turn in strategy research', *Organization Studies*, **27**, pp. 613-634.



- Whittington, R. (2006b). Learning more from failure: Practice and process. *Organization Studies*, **27**, pp. 1903-1906.
- Whittington, R., E. Molloy, M. Mayer and A. Smith (2006). 'Practices of strategising/organizing - Broadening strategy work and skills', *Long Range Planning*, **39**, pp. 615-629.
- Wooldridge, B. and S. W. Floyd (1990). 'The Strategy Process, Middle Management Involvement, and Organizational Performance', *Strategic Management Journal*, **11**, pp. 231-241.
- Wooldridge, B., T. Schmid and S. W. Floyd (2008). 'The Middle Management Perspective on Strategy Process: Contributions, Synthesis, and Future Research', *Journal of Management*, **34**, pp. 1190-1221.
- Wright, R. P. Paroutis, S. E. and Blettner, D. P. (2013). How useful are the strategic tools we teach in business schools? *Journal of Management Studies*, **50**, pp. 92-125.

Figure 1. Theorized model of strategy workshop design characteristics and outcomes



*Table 1. Exploratory factor analysis of dependent variables*

Items	Factor loadings		
	Organizational outcomes	Interpersonal outcomes	Cognitive outcomes
‘What impact did the strategy workshop have upon the following aspects of your organization?’ <sup>a</sup>			
Corporate values	0.78		
Vision/mission statement	0.76		
Business plan/strategy	0.65		
Business processes	0.57		
‘From a personal perspective, what impact did the workshop have upon your relationships with the following?’ <sup>a</sup>			
Colleagues		0.79	
Junior managers		0.75	
Senior managers		0.73	
Employees		0.59	
‘How far do you agree that attending the workshop improved your own understanding of the following?’ <sup>b</sup>			
Products and services			0.79
Competitor activity			0.75
Other departments			0.62
Organization’s future plans			0.50
Eigenvalue	2.45	2.41	1.98
Percentage variance explained	20.39	20.11	16.51
Cumulative variance explained	20.39	40.50	57.01
Cronbach’s Alpha	0.72	0.77	0.71

*Notes:*

<sup>a</sup> Scale anchors: 1=‘Very negative’, 2=‘Negative’, 3=‘No impact’, 4=‘Positive’, 5=‘Very positive’

<sup>b</sup> Scale anchors: 1=‘Strongly disagree’, 2=‘Disagree’, 3=‘Neither agree nor disagree’, 4=‘Agree’, 5=‘Strongly agree’

*Table 2. Summary statistics of confirmatory factor analysis of workshop outcomes*

Fit statistics	Hypothesized 3-factor model	Alternative 1-factor model	Alternative 2-factor model
DELTA-2 (IFI)	.93	.84	.88
RNI	.93	.84	.87
CFI	.93	.84	.87
RMSEA	.07	.10	.09
$\chi^2$	151.38 <sup>***</sup>	274.94 <sup>***</sup>	221.92 <sup>***</sup>
df	51	54	53
$\chi^2/\text{df}$	2.97	5.09	4.19
$\Delta \chi^2_{(\text{df})}$	-	123.56 <sub>(3)</sub> <sup>***</sup>	70.54 <sub>(2)</sub> <sup>***</sup>

Table 3. Means, standard deviations, and correlations for study variables <sup>a</sup>

	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1. Industry	0.96	0.57												
2. Ownership	0.54	0.50	-0.25											
3. Organizational size	8.27	3.71	-0.07	-0.18										
4. Development: growing	0.61	0.49	0.01	0.08	-0.12									
5. Development: stable	0.26	0.44	0.00	0.00	-0.02	-0.74								
6. Respondent: director	0.38	0.49	0.05	0.09	-0.37	0.11	-0.02							
7. Respondent: manager	0.49	0.50	-0.03	-0.04	0.23	-0.08	0.02	-0.77						
8. Respondent role	0.19	0.39	0.00	0.03	-0.16	0.05	0.01	0.14	-0.09					
9. Goal clarity	3.94	0.86	0.03	0.04	-0.08	0.15	-0.09	0.16	-0.15	0.13				
10. Formulation	0.88	0.33	0.03	0.01	-0.06	0.01	0.04	0.11	-0.09	0.00	-0.03			
11. Implementation	0.65	0.48	0.00	-0.03	0.05	0.04	-0.05	-0.09	0.08	0.04	0.09	-0.18		
12. Removal	1.15	0.82	-0.05	0.08	-0.15	-0.04	0.06	0.09	-0.05	-0.03	-0.10	-0.05	-0.03	
13. Serialization	0.99	1.10	-0.06	-0.01	0.13	0.11	-0.10	0.02	-0.01	0.04	0.10	0.01	0.11	-0.01
14. Stakeholders	2.82	1.46	0.02	-0.12	0.13	-0.03	0.04	-0.19	0.09	0.00	0.03	0.04	0.12	0.01
15. Participants	3.64	1.52	0.06	-0.29	0.44	-0.06	0.03	-0.25	0.14	-0.07	-0.01	-0.10	0.12	0.05
16. Participants squared	15.52	11.28	-0.03	0.15	-0.25	0.10	-0.04	0.10	-0.08	0.03	0.09	-0.01	0.01	0.02
17. Preparation	2.94	1.36	-0.09	0.12	-0.01	0.09	-0.04	0.09	-0.04	0.29	0.21	0.11	0.06	-0.05
18. Duration	2.14	0.96	-0.03	0.06	0.20	-0.05	0.05	-0.08	0.08	-0.03	0.06	0.05	0.07	0.22
19. Number of tools	2.25	1.80	0.00	0.09	0.00	0.06	-0.02	0.08	-0.06	0.03	0.12	0.13	0.08	0.02
20. Scenarios	0.28	0.45	0.03	0.01	0.06	0.02	0.01	0.07	-0.09	-0.01	0.10	0.07	0.05	-0.01
21. Organizational outcomes	3.77	0.51	0.07	-0.06	-0.11	0.21	-0.12	0.16	-0.14	0.10	0.41	0.02	0.11	-0.11
22. Interpersonal outcomes	3.86	0.67	0.08	0.07	-0.18	0.22	-0.05	0.17	-0.12	0.16	0.39	0.04	0.07	-0.01
23. Cognitive outcomes	3.70	0.58	0.07	0.05	-0.13	0.19	-0.10	0.11	-0.10	0.09	0.30	0.05	0.00	-0.06

<sup>a</sup> All correlations ( $r \geq 0.08$ ) are significant at the  $p < 0.05$  level;  $r \geq 0.12$  is significant at  $p < 0.01$ ;  $r \geq 0.22$  is significant at  $p < 0.001$ .

Table 3. (Continued)

	13	14	15	16	17	18	19	20	21	22
1. Industry										
2. Ownership										
3. Organizational size										
4. Development: growing										
5. Development: stable										
6. Respondent: director										
7. Respondent: manager										
8. Respondent role										
9. Goal clarity										
10. Formulation										
11. Implementation										
12. Removal										
13. Serialization										
14. Stakeholders	0.10									
15. Participants	0.11	0.37								
16. Participants squared	-0.03	0.00	0.01							
17. Preparation	0.17	0.08	-0.04	-0.04						
18. Duration	0.15	0.12	0.23	-0.10	0.26					
19. Number of tools	0.08	0.11	-0.06	-0.02	0.24	0.21				
20. Scenarios	0.03	0.07	0.08	0.03	0.10	0.10	0.48			
21. Organizational outcomes	0.15	0.08	0.00	0.08	0.14	0.04	0.18	0.10		
22. Interpersonal outcomes	0.06	0.03	-0.14	0.17	0.16	-0.01	0.13	0.09	0.54	
23. Cognitive outcomes	0.15	0.02	-0.08	0.10	0.19	0.08	0.14	0.16	0.47	0.44

<sup>a</sup> All correlations ( $r \geq 0.08$ ) are significant at the  $p < 0.05$  level;  $r \geq 0.12$  is significant at  $p < 0.01$ ;  $r \geq 0.22$  is significant at  $p < 0.001$ .

Table 4. Results of regression analyses

Predictors	Organizational outcomes				Interpersonal outcomes				Cognitive outcomes			
	<i>B</i>	$\beta$	S.E.	95% CI	<i>B</i>	$\beta$	S.E.	95% CI	<i>B</i>	$\beta$	S.E.	95% CI
<i>Control variables</i>												
Industry <sup>a</sup>	0.02	0.03	0.03	-0.04, 0.09	0.07	0.06	0.03	-0.01, 0.12	0.08	0.07 <sup>*</sup>	0.04	0.00, 0.15
Ownership <sup>b</sup>	-0.08	-0.08 <sup>*</sup>	0.03	-0.15, -0.01	-0.01	0.00	0.04	-0.07, 0.07	0.03	0.03	0.04	-0.05, 0.10
Organizational size	-0.01	-0.08 <sup>*</sup>	0.04	-0.16, -0.01	0.00	-0.01	0.04	-0.09, 0.07	-0.02	-0.13 <sup>**</sup>	0.04	-0.22, -0.05
Development: growing	0.13	0.13 <sup>*</sup>	0.05	0.02, 0.23	0.46	0.33 <sup>***</sup>	0.05	0.23, 0.43	0.15	0.13 <sup>*</sup>	0.05	0.02, 0.24
Development: stable	0.01	0.01	0.05	-0.09, 0.11	0.39	0.26 <sup>***</sup>	0.05	0.16, 0.36	0.03	0.02	0.05	-0.09, 0.12
Respondent: director	0.06	0.05	0.06	-0.05, 0.16	0.10	0.07	0.06	-0.04, 0.18	-0.09	-0.08	0.06	-0.19, 0.04
Respondent: manager	-0.04	-0.04	0.05	-0.15, 0.06	0.03	0.02	0.05	-0.08, 0.12	-0.11	-0.09	0.06	-0.20, 0.02
Respondent role <sup>c</sup>	0.05	0.04	0.03	-0.03, 0.10	0.14	0.08 <sup>*</sup>	0.03	0.02, 0.15	0.01	0.01	0.04	-0.06, 0.08
<i>Independent variables</i>												
Goals and purpose												
Goal clarity	0.23	0.39 <sup>***</sup>	0.02	0.32, 0.46	0.26	0.34 <sup>***</sup>	0.03	0.27, 0.40	0.16	0.24 <sup>***</sup>	0.04	0.16, 0.31
Formulation <sup>d</sup>									0.02	0.01	0.04	-0.06, 0.08
Implementation <sup>e</sup>	0.07	0.08 <sup>*</sup>	0.03	0.01, 0.14								
Routinization												
Removal	-0.04	-0.08 <sup>*</sup>	0.03	-0.13, -0.01					-0.03	-0.05	0.04	-0.12, 0.02
Serialization	0.05	0.10 <sup>**</sup>	0.03	0.04, 0.17					0.06	0.12 <sup>**</sup>	0.04	0.04, 0.18
Involvement												
Stakeholders					0.04	0.09 <sup>*</sup>	0.02	0.02, 0.16				
Participants					-0.06	-0.13 <sup>**</sup>	0.01	-0.21, -0.06				
Participants squared					0.03	0.11 <sup>**</sup>	0.01	0.04, 0.18				
Cognitive effort												
Preparation									0.04	0.10 <sup>*</sup>	0.02	0.02, 0.18
Duration									0.03	0.09 <sup>*</sup>	0.03	0.03, 0.12
Number of tools									0.01	0.03	0.01	-0.05, 0.12
Scenarios									0.15	0.12 <sup>**</sup>	0.05	0.04, 0.19
<i>R</i> <sup>2</sup>		0.28				0.27					0.19	
Adjusted <i>R</i> <sup>2</sup>		0.26				0.26					0.18	
<i>F</i>		20.91 <sup>***</sup>				21.43 <sup>***</sup>					10.13 <sup>***</sup>	
d.f.		671				712					689	

*Table 4. Results of regression analyses (cont.)*

---

*Notes:*

*B* = unstandardized beta coefficient,  $\beta$  = standardized beta coefficient, S.E. = standard error of  $\beta$ , 95% CI = 2.5% lower and 97.5% upper limits of 95% confidence interval

<sup>a</sup> Service/other firm = 0, Manufacturing firm = 1

<sup>b</sup> Public sector = 0, private sector = 1

<sup>c</sup> Participant = 0, facilitator = 1

<sup>d</sup> Formulation = 1, implementation/other = 0

<sup>e</sup> Implementation = 1, formulation/other = 0

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$